Remarks

This response is timely filed with the accompanying Petition for a Two Month Extension of Time, because the due date for responding to the May 31, 2002 Office Action was June 30, 2002. The Office Action dated May 31, 2002 requires restriction of claims 87-90, 99-101, 111, 113-122, 137-138. The applicant traverses this restriction requirement on the ground that these claims are directed to generic claims and a reasonable number of species claims. However, in order to advance prosecution, the applicant elects species to which the claims may be restricted if no generic claims are allowed pursuant to 37 CFR 1.146.

The applicant admits that murine CD40L and human CD40L are obvious variants of one another. However, the applicant respectfully submits that no election is required with respect to these species of the original invention of Group I because the claims presently subject to restriction do not claim human CD40L alone. Nonetheless, to advance prosecution, the applicant elects, with traverse, to prosecute claims directed to species of the originally present invention of Group I wherein the CD40L specificity is murine CD40L, corresponding to claims 87 and 88. These claims are drawn to introducing a nucleic acid sequence encoding a murine CD40 ligand into a CD40+ cell.

The applicant further elects, with traverse, to prosecute claims directed to species of the originally present invention of Group I wherein the cell is a CLL cell, corresponding to claims 111 and 114.

In addition, the applicant elects, with traverse, to prosecute claims directed to species of the originally present invention of Group I wherein the domain/subdomain of the non-human CD40 ligand comprises Domain IV, corresponding to claims 92 and 95.

Finally, the applicant elects, with traverse, to prosecute claims directed to species of the originally present invention of Group I wherein the nucleic acid comprises SEQ. ID. No. 3.

Conclusion

On the basis of the above, the applicant believes that allowance of the application is warranted, and such action is respectfully requested. If the Examiner has any questions or comments regarding this amendment and election, the Examiner is respectfully urged to contact the undersigned at the number listed below.

Respectfully submitted,

LYON & LYON, LLP.

Dated: August 14, 2002

By: Rita Abbati

Rita A Abbati
Reg. No. 50, 715
Attorney for Applicants

633 W. Fifth Street, Suite 4700
Los Angeles, CA 90071
Tel: (858) 552-8400

Version With Markings to Show Changes Made

U.S. Application Serial No. 08/982,272

In the claims:

111. (Twice Amended) The method of claims 89, 90, 103, 108, 137 or 138, wherein the cell comprises a human neoplastic cell that is CD40+.

Claims 139 - 140 have been added with this Amendment.

Clean Copy of Pending Claims Upon Entry of August 14, 2002 Amendment

U.S. Application Serial No. 08/982,272

87. A method for expressing a CD40 ligand in a human cell that expresses a CD40 ligand receptor, comprising introducing a nucleic acid sequence encoding a non-human CD40 ligand into the cell.

88. The method of claim 87 wherein the non-human CD40 ligand comprises murine CD40 ligand.

89. A method for expressing a ligand capable of binding to a CD40 ligand receptor in a human cell that expresses a CD40 ligand receptor, comprising introducing a nucleic acid sequence encoding a domain or subdomain of human CD40 ligand and a domain or subdomain of non-human CD40 ligand into the cell.

90. A method for increasing the concentration of a ligand on the surface of a human cell, wherein the ligand is capable of binding to a CD40 ligand receptor, comprising introducing a nucleic acid sequence encoding a domain or sub-domain of human CD40 ligand and a domain or subdomain of non-human CD40 ligand into the human cell, wherein the encoded CD40 ligand has increased stability on the surface of the cell relative to that of a human CD40 ligand.

92. The method of claim 89 or claim 90, wherein the non-human CD40 ligand domain or subdomain comprises a murine CD40 ligand domain or subdomain.

93. The method of claim 92 wherein the murine CD40 ligand domain or subdomain comprises a murine CD40 ligand extracellular domain.

94. The method of claim 92 wherein the murine CD40 ligand domain or subdomain comprises Domain III, or a subdomain of Domain III, of the murine CD40 ligand.

95. The method of claim 92 wherein the murine CD40 ligand domain or subdomain comprises Domain IV, or a subdomain of Domain IV, of the murine CD40 ligand.

96. The method of claim 94 wherein the murine CD40 ligand further comprises Domain IV, or a subdomain of Domain IV, of the murine CD40 ligand.

97. The method of claim 92 wherein the murine CD40 ligand comprises Domain I, or a subdomain of Domain I, of the murine CD40 ligand.

98. The method of claim 92 wherein the murine CD40 ligand comprises Domain II, or a subdomain of Domain II, of the murine CD40 ligand.

99. The method of claim 92 wherein the nucleic acid sequence comprises SEQ ID NO. 3, SEQ ID NO. 4, SEQ ID NO. 5, SEQ ID NO. 6, SEQ ID NO. 7 or SEQ ID NO. 20.

100. The method of claim 99 wherein the nucleic acid sequence comprises SEQ ID NO. 20.

101. The method of claims 89 or 90, wherein the introduction of the nucleic acid sequence into the cell results in induced expression of surface markers on the cell.

102. The method of claim 101, wherein the surface markers comprise CD54, CD80, CD86, CD58, CD70, or CD95.

103. A method for expressing a ligand capable of binding to a CD40 ligand receptor in a human cell that expresses a CD40 ligand receptor, comprising introducing a nucleic acid sequence encoding a domain or subdomain of human CD40 ligand and a domain or subdomain of a non-human ligand selected from the group consisting of CD40 ligand, TNF-alpha, TNF-beta, CD70, CD30 ligand, 4-1 BBL, nerve growth factor and TNF-related apoptosis inducing ligand (TRAIL).

104. The method of claim 103 or claim 137, wherein the non-human ligand domain or subdomain comprises a murine ligand domain or subdomain.

105. The method of claim 104 wherein the murine ligand comprises Domain III, or a subdomain of Domain III, of the murine ligand.

106. The method of claim 104 wherein the murine ligand comprises Domain IV, or a subdomain of Domain IV, of the murine ligand.

107. The method of claim 105 wherein the murine ligand further comprises Domain IV, or a subdomain of Domain IV, of the murine ligand.

108. A method for expressing a ligand capable of binding to a CD40 ligand receptor in a human cell that expresses a CD40 ligand receptor, comprising introducing a nucleic acid sequence encoding a domain or subdomain of human CD40 ligand and a domain or subdomain of a human ligand selected from the group consisting of CD40 ligand, TNF-alpha, TNF-beta, CD70, CD30 ligand, 4-1 BBL, nerve growth factor and TNF-related apoptosis inducing ligand (TRAIL).

109. The method of claim 108 or 138, wherein the human CD40 ligand comprises Domain IV, or a subdomain of Domain IV, of human CD40 ligand.

110. The method of claim 109 wherein the chimeric CD40 ligand comprises Domains I, II, and IV of human CD40 and Domain III of human CD70 receptor ligand.

111. The method of claims 89, 90, 103, 108, 137 or 138, wherein the cell comprises a human neoplastic cell that is CD40+.

113. The method of claim 111, wherein the cell comprises a neoplastic B cell.

114. The method of claim 113, wherein the neoplastic B cell comprises a CLL cell.

115. The method of claim 113 wherein the neoplastic B cell is derived from a patient with a B cell malignancy.

116. The method of claim 111 wherein the neoplastic cell comprises a T cell.

117. The method of claim 111 wherein the neoplastic cell comprises a dendritic cell.

118. The method of claim 111 wherein the neoplastic cell comprises a monocyte.

119. The method of claim 111 wherein the neoplastic cell comprises a myelomonocyte.

120. The method of claim 111 wherein the neoplastic cell comprises a cell derived from a breast tumor.

121. The method of claim 111 wherein the neoplastic cell comprises a cell derived from an ovarian tumor.

122. The method of claim 111 wherein the neoplastic cell comprises a cell derived from a lung tumor.

137. A method for increasing the concentration of a ligand on the surface of a human cell, wherein the ligand is capable of binding to a CD40 ligand receptor, comprising introducing a nucleic acid sequence encoding a domain or sub-domain of human CD40 ligand and a non-human ligand selected from the group consisting of CD40 ligand, TNF-alpha, TNF-beta, CD70, CD30 ligand, 4-1 BBL, nerve growth factor and TNF-related apoptosis inducing ligand (TRAIL).

138. A method for increasing the concentration of a ligand on the surface of a human cell, wherein the ligand is capable of binding to a CD40 ligand receptor, comprising introducing a nucleic acid sequence encoding a domain or sub-domain of human CD40 ligand and a human ligand selected from the group consisting of CD40 ligand, TNF-alpha, TNF-beta, CD70, CD30 ligand, 4-1 BBL, nerve growth factor and TNF-related apoptosis inducing ligand (TRAIL).

139. The method of claims 89, 90, 103, 108, 137 or 138, wherein the cell comprises a human non-neoplastic cell that is CD40+.

140. The method of claim 139, wherein the cell comprises a B cell.